

**Flood Control Project Maintenance
Levee Inspections**

Maintenance Issue Types Only, Levee Inspection Report By Mile - Fall 2015

Reclamation District No. 2085 Kasson

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start		Rating **	A	Issue No.	7
LM End		Issue Type +	Ma	Location *	N/A
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Operations & Maintenance Manuals				°
					°
DWR ID	DWR_RD2085_01_s _ 2013_7				
Action/Comments					
Inspector Comments: The O&M Manual is available at the office.					

No Photos

LM Start		Rating **	A	Issue No.	9		
LM End		Issue Type +	Ma	Location *	N/A		
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
Item	Emergency Supplies & Equipment				°		°
					°		°
DWR ID	DWR_RD2085_01_s _ 2013_9						
Action/Comments							
Inspector Comments: Flood fighting supplies are available at the River Club.							

No Photos

LM Start		Rating **	A	Issue No.	14		
LM End		Issue Type +	Ma	Location *	N/A		
Category	Earthen Levee			GPS Latitude/Longitude			
				Start		End	
Item	Flood Preparedness & Training				°		°
					°		°
DWR ID	DWR_RD2085_01_s _ 2013_14						
Action/Comments							
Inspector Comments: The LMA has a flood fighting plan and training.							

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	0.12	Rating **	M	Issue No.	19
LM End	0.12	Issue Type +	Ma	Location *	CR
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.719052 °	37.719052 °
				-121.302928 °	-121.302928 °
DWR ID	DWR_RD2085_01_f_2015_19				
Action/Comments					
Add appropriate material and re-grade the levee to bring the crown above the design elevation. Inspector Comments: Disking on the levee shoulder.					

Photo 1 of 1 : FA_2015_RD2085_113_19_20151112_00019.jpg



View of the diskings on the levee crown shoulder.

LM Start	2.56	Rating **	M	Issue No.	1
LM End	2.58	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.703094 °	37.703094 °
				121.274894 °	121.274894 °
DWR ID					
Action/Comments					
Inspector Comments: 09/10/2015: No significant change observed. Signs of animal activity are present. 09/10/2014: No significant change observed. 09/20/2013: No significant change in erosion observed. More vegetation at the site. 12/04/2012: The erosion has progressed remarkably toward levee, extended to the up-and downstream of the original pocket erosion. Trees and dense bush are present at the site. Animal burrow holes are visible, and possibly can cause seepage. 09/22/2010: No significant change observed. There is little visibility due to seasonal grass on the berm and slope. 08/18/2009: Site is located on berm; pocket erosion has developed; the site is covered in dense vegetation; there are several relief wells on the landside of the levee; site is Not Rated because berm width is greater than 30 feet; site should be monitored to keep track of erosion progress. [2015 Site ID:RD2085U01RM66.5]					

Photo 1 of 2 : SJR2015_RD2085U01RM66.50_11.jpg



Direct view of the erosion. Note dense vegetation at the site.

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	2.56	Rating **	M	Issue No.	1 (cont)
LM End	2.58	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.703094 °	37.703094 °
				121.274894 °	121.274894 °
DWR ID					
Action/Comments					
Inspector Comments: 09/10/2015: No significant change observed. Signs of animal activity are present. 09/10/2014: No significant change observed. 09/20/2013: No significant change in erosion observed. More vegetation at the site. 12/04/2012: The erosion has progressed remarkably toward levee, extended to the up-and downstream of the original pocket erosion. Trees and dense bush are present at the site. Animal burrow holes are visible, and possibly can cause seepage. 09/22/2010: No significant change observed. There is little visibility due to seasonal grass on the berm and slope. 08/18/2009: Site is located on berm; pocket erosion has developed; the site is covered in dense vegetation; there are several relief wells on the landside of the levee; site is Not Rated because berm width is greater than 30 feet; site should be monitored to keep track of erosion progress. [2015 Site ID:RD2085U01RM66.5]					

Photo 2 of 2 : SJR2015_RD2085U01RM66.50_4.jpg



Close view of the erosion.

LM Start	2.90	Rating **	M	Issue No.	21
LM End	2.90	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.698700 °	37.698700 °
				-121.277199 °	-121.277199 °
DWR ID	DWR_RD2085_01_f_2015_21				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	3.03	Rating **	A/W	Issue No.	24
LM End	3.03	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.697115 °	37.697115 °
				-121.277870 °	-121.277870 °
DWR ID	DWR_RD2085_01_f_2015_24				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

LM Start	3.34	Rating **	N	Issue No.	30
LM End	3.34	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.693019 °	37.693019 °
				-121.277892 °	-121.277892 °
DWR ID	DWR_RD2085_01_s_2014_30				
Action/Comments					
Tree stumps.					

No Photos

LM Start	3.62	Rating **	A/W	Issue No.	2
LM End	3.75	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.688545 °	37.688545 °
				-121.276298 °	-121.276298 °
DWR ID					
Action/Comments					
Inspector Comments: 08/19/2015: No significant change observed. 7/17/2014: No significant change observed. 09/10/2013: No significant change observed. 12/04/2012: This site has been documented before, and a cost estimate to repair has been prepared dated 05/09/2010. The fresh cut shows the erosion is developing. The berm width is at least 42 feet. Sticks were placed at three locations along the river bank, with 3 sticks 5 feet apart at each location. [2015 Site ID:RD2085U01RM67.7]					

Photo 1 of 2 : SJR2015_RD2085U01RM67.70_4.jpg



Close view of the erosion.

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement	
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Reclamation District No. 2085 Kasson

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	3.62	Rating **	A/W	Issue No.	2 (cont)
LM End	3.75	Issue Type +	Ma	Location *	WS
Category	Supplemental			GPS Latitude/Longitude	
				Start	End
Item	DWR Erosion Survey			37.688545 °	37.688545 °
				-121.276298 °	-121.276298 °
DWR ID					
Action/Comments					
Inspector Comments: 08/19/2015: No significant change observed. 7/17/2014: No significant change observed. 09/10/2013: No significant change observed. 12/04/2012: This site has been documented before, and a cost estimate to repair has been prepared dated 05/09/2010. The fresh cut shows the erosion is developing. The berm width is at least 42 feet. Sticks were placed at three locations along the river bank, with 3 sticks 5 feet apart at each location. [2015 Site ID:RD2085U01RM67.7]					

Photo 2 of 2 : SJR2015_RD2085U01RM67.70_9.jpg



Direct view of the erosion.

LM Start	3.71	Rating **	M	Issue No.	25
LM End	3.71	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.688216 °	37.688216 °
				-121.276603 °	-121.276603 °
DWR ID	DWR_RD2085_01_f_2015_25				
Action/Comments					
Repair the levee slope damaged by vehicle traffic and prevent access where possible.					

Photo 1 of 1 : FA_2015_RD2085_113_25_20151112_00020.jpg



View of the waterside levee slope damaged by vehicle.

LM Start	3.74	Rating **	M	Issue No.	26
LM End	3.74	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Slope Stability			37.687841 °	37.687841 °
				-121.276678 °	-121.276678 °
DWR ID	DWR_RD2085_01_f_2015_26				
Action/Comments					
Repair the levee slope damaged by foot traffic and prevent access where possible.					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	

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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	4.26	Rating **	C	Issue No.	54
LM End	4.53	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.681886 °	37.681332 °
				-121.272333 °	-121.267518 °
DWR ID	DWR_RD2085_01_s_2012_54				
Action/Comments					
Remove the wild growth other than native grasses from the levee slopes.					

No Photos

LM Start	4.46	Rating **	N	Issue No.	32
LM End	4.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.681605 °	37.681605 °
				-121.268882 °	-121.268882 °
DWR ID	DWR_RD2085_01_s_2012_32				
Action/Comments					
Tree stumps.					

Photo 1 of 1 : FA_2015_RD2085_113_32_20150910_00006.jpg



11/03/2011 Large stump on landside slope.

LM Start	5.02	Rating **	M	Issue No.	22
LM End	5.02	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.677830 °	37.677830 °
				-121.268769 °	-121.268769 °
DWR ID	DWR_RD2085_01_f_2013_22				
Action/Comments					
Remove the wild growth other than native grasses from the levee slopes.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown		** Rating A : Acceptable N : Not Inspected/Rated M : Minimally Acceptable C : Corrected U : Unacceptable A/W : Acceptable but Monitor & Maintain		+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Unit No. 01 San Joaquin River	Left	5.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	5.24	Rating **	N	Issue No.	29
LM End	5.24	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Trim / Thin Trees			37.675099 °	37.675099
				-121.269264 °	-121.269264
DWR ID	DWR_RD2085_01_f _ 2015_29				
Action/Comments					
Tree stumps.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Reclamation District No. 2085 Kasson

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 02 San Joaquin River		0.70	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	0.07	Rating **	A	Issue No.	4
LM End	0.07	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.705740 °	37.705740 °
				-121.274151 °	-121.274151 °
DWR ID	DWR_RD2085_02_f _ 2015_4				
Action/Comments					
Control annual grass and weeds on the levee slopes and easements.					

Photo 1 of 1 : FA_2015_RD2085_114_4_20151112_00003.jpg



View of the acceptable vegetation control on the waterside levee slope.

LM Start	0.46	Rating **	C	Issue No.	3
LM End	0.46	Issue Type +	Ma	Location *	LS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Crown Surface / Depressions / Rutting			37.710991 °	37.710991 °
				-121.271462 °	-121.271462 °
DWR ID	DWR_RD2085_02_s _ 2015_3				
Action/Comments					
Repair depressions or ruts in the crown or slope.					

No Photos

* Location LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	** Rating A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	+ Issue Type Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement
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Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 03 San Joaquin River		0.29	11/10/2015 11/10/2015	Maksim Khashchuk

LM Start	0.02	Rating **	A	Issue No.	4
LM End	0.02	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Vegetation			37.680772 °	37.680772 °
				-121.264359 °	-121.264359 °
DWR ID	DWR_RD2085_03_s_2015_4				
Action/Comments					
Remove the wild growth other than native grasses from the levee slopes.					

Photo 1 of 1 : FA_2015_RD2085_115_4_20151112_00003.jpg



View of the acceptable vegetation control on the waterside levee slope.

LM Start	0.21	Rating **	U	Issue No.	1
LM End	0.23	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Erosion / Bank Caving			37.682798 °	37.683052 °
				-121.262059 °	-121.261851 °
DWR ID	DWR_RD2085_03_s_2014_1				
Action/Comments					
Schedule repair of erosion site prior to the next inspection. Inspector Comments: Erosion of the waterside levee slope has been observed. The erosion is about 3 feet tall vertical from the slope to the base of projected levee toe.					

Photo 1 of 1 : FA_2015_RD2085_115_1_20151112_00004.jpg



View of the erosion at the waterside levee toe.

LM Start	0.22	Rating **	A/W	Issue No.	6
LM End	0.22	Issue Type +	Ma	Location *	WS
Category	Earthen Levee			GPS Latitude/Longitude	
				Start	End
Item	Animal Control			37.682844 °	37.682844 °
				-121.262002 °	-121.262002 °
DWR ID	DWR_RD2085_03_f_2015_6				
Action/Comments					
No rodents visible, but rodent burrows visible; need to backfill and compact or grout burrows.					

No Photos

* Location		** Rating		+ Issue Type	
LS : Land Side	N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency	
WS : Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence	
CR : Crown		U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En : Enforcement	